

DEPARTMENT OF TRANSPORTATION**DIVISION OF ENGINEERING SERVICES**

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch
690 Walnut Ave.St. 150
Vallejo, CA 94592-1133
(707) 649-5453
(707) 649-5493

Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:**Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-002044**Date Inspected:** 31-Dec-2007**Project Name:** SAS Superstructure**OSM Arrival Time:** 1500**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 2300**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** Li Zhi Jiang**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** Tower Mock-Ups**Summary of Items Observed:**

The Caltrans Quality Assurance Inspector (QA), M. Paul Stovall, was present at Zhenhua Port Machinery Company (Z. P. M. C.), Changxing Island, Shanghai, China for the purpose of monitoring the fabrication of the SAS/San Francisco/Oakland Bay Bridge.

77-meter Mock-Up, Z. P. M. C., Welder, Fu Yanzie--066268, welded, weld number MUA-MA1--E/F-19; Jiang Ziaohu--066155, welded, weld number MUA-ME1-E/F-21. He Shibing--066243, welded, weld number MUA-ME1-E/F-8. The QA Inspector observed a welder, ending a weld pass, and starting up another weld pass, without removing the slag off of the previous weld pass, before starting the new one. The QA Inspector pointed this out to Z. P. M. C., Quality Control (QC) personnel, who immediately stopped the welder and told him to remove the slag before starting a new pass. That portion of the weld, where QA observed the welder doing this, was not removed. Welding Procedure Specification (WPS)-B-T-4313-TC--P4-1 was being used to make the weld. Z. P. M. C., QC personnel, during the process of checking preheat and interpass temperatures, observed a high interpass temperature, and stopped the welders to allow the material to cool down. Weld numbers MUA-MA1-E/F-11, MUA-MA1-E/F-12, MUA-MA1-E/F-12, MUA-MA1-E/F-10, MUA-MA1-E/F-9, were welded on, and the QA Inspector recorded the following amperage readings at different time intervals, from different welders: 178 amps, 182 amps, 186 amps, and 183 amps.

89-meter Mock-Up, Z. P. M. C. personnel started the fit-up of Skin C to Diaphragm to Skin B. The bevel face, landing on each mentioned member was ground on. Skin C was placed in position and removed several times, this is common with members of this size. Heaters were placed on Skin C, weld number MUA-MA1-E/F-10, using WPS-B-T-2232-Tc-U5-F, was welded by Lei Lichao--053619, the following parameters were recorded by the QA

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Inspector: 302 amps, and 30.4 volts. Welder Han Xiaofeng--054467, welded, weld number MUSB-MA126-28B-1.

Summary of Conversations:

The QA Inspector spoke with Z. P. M. C., QC Inspectors, Zhang Jiadi, and Li Wen Sheng, regarding the welders not removing slag prior to welding each pass.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Mazen Wahbeh, (818) 292-0659, who represents the Office of Structural Materials for your project.

Inspected By:	Stovall,Paul	Quality Assurance Inspector
Reviewed By:	Cochran,Jim	QA Reviewer
